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Use of Permanent Latex Based Dyes for Christmas Trees

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The fact that some of the conifers used for Christmas tree production become yellow during the fall and winter months has created a problem to the grower or producer. In fact, sales are often lost due to discoloration, even though the trees are otherwise of a premium grade.

Experiments designed to evaluate the use of fertilizers in preventing winter chlorosis particularly in Scotch pine showed that fertilizers had no effect. This is due to the fact that some strains of Scotch pine have genetic factors which result in the needles of the trees turning yellow due to shortened daylength and reduced temperatures during the fall and winter months. Some strains of red or Norway pine follow this same pattern. In cases where trees are growing on poor sites and are chlorotic in the summer months, the use of fertilizers would be helpful in color control of species such as the spruces, firs, white pine, and strains of red and Scotch pine which normally remain green during the winter months.

Tests have been made with latex based pigments, used as sprays to overcome the objectionable pale green and yellow colored needles of pines and spruces. The colors used are green (1&2), tinsel blue (1), tinsel pink (1), and tinsel white (1).

It has been found that the best time of application of green sprays (Greenzit or Winterlawn) is in late September or early October prior to the appearance of the yellow coloration in the needles. One gallon of the spray concentrates can be

(1) Spray concentrates are available from W. A. Cleary Corp., New Brunswick, N.J.
(2) " " " " " Winterlawn Sales Corp., Augusta, Ga.

diluted in 40 gallons of water for excellent results. However, when the trees have become yellow, it is recommended that the concentrate be diluted with only 20 parts of water for satisfactory results. The tinsel white, blue,and pink concentrates cannot be diluted for good results. A dilution of these tinsel colors do not give a uniform coverage. These tinsel sprays may be applied any time from early October to mid-December, providing the temperatures are above freezing. In applying these materials as a spray, one should make sure of complete coverage. If the coverage is poor, the yellow color of the needles become apparent. A wetting agent was used in the sprays for better coverage.

A fine type of spray nozzle is normally used with either a portable back-pack or mobile spraying unit. It is estimated that one man can spray from 50 to 75 trees per hour. Caution should be taken to clean the spraying equipment thoroughly with water after use to prevent clogging.

The color sprays are permanent and have no adverse affect upon the trees if left uncut in the field during the next growing season.

The following species have been sprayed with the above mentioned colored sprays: Scotch pine, red pine, white pine, Austrian pine, and Norway spruce. In all cases the spray applications were very satisfactory.

Figure 1. Technician William Smith spraying a Norway spruce with "Tinsel White". The portagle spraying unit is equipped with an agitator.